

REMARKS

This Amendment, submitted in response to the Office Action dated May 27, 2009, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1, 3-7, 9-16, and 20 are all the claims pending in the application. Claims 2, 8, 17, 18, and 19 are canceled. Applicant has amended claims 1 and 7 to partially include the subject matter of claims 2 and 8, respectively.

I. Rejection of claims 35 U.S.C. § 103

Claims 1, 3, 7, 9, 14, 18 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aweva et al. (US 6,894,974 B1) in view of Hann (US 7,088,722 B1). Claim 18 has been canceled therefore, the rejection of claim 18 is now moot.

Claim 1

Claim 1 recites:

A communication system, comprising:
a transmitter for transmitting one or more data packets;
at least one receiver connected to the transmitter, for receiving the data packets and transmitting to the transmitter one or more response signals in response to the received data packets; and
a multiplexer for multiplexing and transmitting to the transmitter the response signals transmitted from the receiver, and transmitting the transmitted data packets from the transmitter to a corresponding receiver, the multiplexer composed of:
a queue status monitor; and
a congestion control adjuster,

wherein the queue status monitor monitors a queue status of at least one of the transmitted data packets and the response signals, and

wherein the congestion control adjuster instructs the receiver to compress the response signals based on the monitored queue status, and

wherein the receiver includes a response signal holding/compressing unit if instructed by the congestion control adjuster to compress the response signals, compressing the response signals for a second predetermined period of time.

On pages 17-18 of the Office Action, the Examiner disagrees with the Applicant's argument that the flow control unit 148 in Hann fails to specifically teach the claimed congestion control adjuster. Specifically, the Examiner asserts that Hann teaches FIFO within DSLAM 30 are continuously monitored for status of data storage capacity as recited in column 6, lines 50-54 and column 8, lines 25-27.

The congestion control adjuster in claim 1 instructs the receiver to compress the response signals. Hann discloses starting or stopping transmission of data, but does not disclose the congestion control adjuster of claim 1 which instructs the receiver to compress the response signals. The logic unit (112) in the DSLAM (30) of Hann is directed to halt the transmission of data, whereas the congestion control adjuster in claim 1 instructs the receiver to compress the response signals. Accordingly, both inventions are different.

Therefore, neither Aweva nor Hann teaches or suggests that the flow control unit 148 instructs a receiver to compress a response signal.

In addition, on page 17 of the Office Action, the Examiner disagrees with the Applicant's argument that the combination of Hann and Aweva is not obvious. The Examiner asserts that

there is a teaching to modify the system of Aweva as taught by Hann in order to provide the multiplexer composed of a queue status monitor or a congestion control adjusted, citing column 6, lines 50-56 and column 8, lines 25-27.

In Aweva, the ACK pacing control unit (38) disposed outside the MUX (50) comprises the Q monitor (see FIG. 2). The flow control unit (148) of Hann would be disposed outside the MUX (50) when the MUX (50) of Aweva is combined with the flow control unit (148) of Hann. Therefore, Applicant submits that even those skilled in the art cannot derive that the Q monitor is included inside the MUX (50) of Aweva.

Furthermore, it is logical that flow control is performed according to the monitored Q status. Accordingly, it is obvious that the Q monitor is disposed outside the MUX (50), so there is no teaching or suggestion that the flow control unit is disposed inside the MUX (50) if Aweva and Hann were to be combined.

Amended claim 1 includes the feature “wherein the receiver includes a response signal holding/compressing unit if instructed by the congestion control adjuster to compress the response signals, compressing the response signals for a second predetermined period of time,” which was formerly recited in claim 2. On page 14 of the Office Action, the Examiner states that Guttman specifically teaches the features of claim 2.

Guttman relates to a method for controlling transmission of packets. Guttman discloses that packets are compressed to be efficiently transmitted from a transmitter to a receiver. That is, in Guttman, compression of packets is performed by the compression unit (74) of the transmitter. See column 9, lines 15-35.

However, the response signal holding/compressing unit in amended claim 1, which compresses the response signals is included in the receiver. Therefore, Guttman does not teach the elements of claim 1.

Therefore, Applicant submits that those skilled in the art cannot derive the feature of the response signal holding/compressing unit in amended claim 1 from the combination of Aweva, Hann, and Guttman. Therefore, claim 1 and its dependent claims should be deemed allowable.

Claim 7 is amended to include the feature of claim 8 in the same manner as amended claim 1, so claim 7 and its dependent claims should be deemed allowable for at least the same reasons.

Claim 20

Applicant submits that none of the references cited by the Examiner teach or suggest the technical features of claim 20. Specifically, none of the art cited by the Examiner teaches or suggests “a first-in first-out (FIFO) buffer which outputs one of: the one or more data packets transmitted from the transmitter and the one or more response signals transmitted from the receivers,” as claimed. Therefore, claim 20 should further be deemed allowable.

II. Rejection of claims 35 U.S.C. § 103

Claims 6 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aweva et al. (US 6,894,974 B1) in view of Hann (US 7,088,722 B1) as applied to claims 1, 7 and 13 above, and further in view of Norrell et al. (USP 6,853,637 B1).

Claims 6 and 12 should be deemed allowable by virtue of their dependency to claims 1 and 7 for at least the reasons set forth above. Moreover, Norell does not cure the deficiencies of Aweva and Hann.

III. Rejection of claims 35 U.S.C. § 103

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Aweva et al. (US 6,894,974 B1) in view of Hann (US 7,088,722 B1) and further in view of Schweinhart et al. (US 6,961,539 B2).

As indicated above, claim 19 has been canceled. Therefore, the rejection of claim 19 is now moot.

IV. Rejection of claims 35 U.S.C. § 103

Claims 2, 4-5, 8, 10-11, 13 and 15-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aweva et al. (US 6,894,974 B1) in view of Hann (US 7,088,722 B1) as applied to claims 1, 7 and 13 above, and further in view of Guttman et al. (USP 7,031,259).

Claims 2 and 8 are canceled. Claims 4-5, 10-11, 13 and 15-16 should be deemed allowable by virtue of their dependency to amended claims 1 and 7 for at least the reasons set forth above.

To the extent claim 13 recites subject matter similar to claim 1, claim 13 and its dependent claims should be deemed allowable for at least the same reasons. Further, Guttman does not cure the deficiencies of Aweva and Hann.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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